

Abstract

A piezoelectric actuator, for instance for actuating a mechanical component, is proposed in which the piezoelectric actuator is provided with a multilayer construction of piezoelectric layers perpendicular to the action direction (6, 7) inner electrodes (2, 3) located between the piezoelectric layers, which inner electrodes, for actuating the piezoelectric actuator, can be subjected to an electrical voltage via outer electrodes. At further piezoelectric layers with inner electrodes (8, 9), an electrical sensor signal that is proportional to the actuation of the piezoelectric actuator (1) can be picked up via further outer electrodes (10, 11; 21, 22, 23, 24). The piezoelectric layers for the actuator part and the piezoelectric layers for the at least one sensor part are integrated in one component as a piezoelectric actuator (1), in such a way that individual piezoelectric layers for the sensor part are located at predetermined spacings or also side by side between the piezoelectric layers for the actuator part.

(Fig. 1)